

ABSTRACT

The **Dragless Flight Control System** for Flying Objects utilizes paired fins that are mounted to rotate in opposite directions. When no lift is desired during the object's flight, the fins are completely retractable into their housings recessed into the body of the object. This minimizes the drag. The fins are set to a maximum no-stall angle relative to the body axis of the flying object. To provide lift and other flight controls, such as roll and yaw, the fins are selectively exposed outside the exterior skin of the flying object by being rotated on their axes, the two fins in a pair always being rotated in opposite directions. Varying the amount of exposed area of the counter-rotating fins can generate lift effect that is proportional to the exposed area and similar to that produced by current permanently extended standard rotational fins.